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FREUDENBERG-NOK GENERAL PARTNERSHIP  
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PLYMOUTH, MI 48170-2455

EXAMINER
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DANIELS, MATTHEW J

ART UNIT	PAPER NUMBER
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1791

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

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***Response to Arguments***

1. Applicant's arguments filed 5 March 2008 have been fully considered but they are not persuasive. The arguments appear to be on the following grounds:

a) Applicant did not attack the references individually in the August 30, 2007 Amendment.

Rather, with regard to the Ozawa reference, when the "heat treatment" in column 18 of Ozawa is read in context, it is not a teaching of crosslinking or vulcanizing because in the very next paragraph, the Ozawa specification clarifies that even though a heat treatment is performed, it is to be understood that the production process involving heat treatment does not involve crosslinking. The Examiner states that the reference as a whole cannot be said to teach away from a step of crosslinking or vulcanization, and Applicant would like to consider the heat treatment in its full context in column 18 of the reference.

b) With regard to the combination of Yokokawa and DeAntonis, Applicants argue that DeAntonis teaches only thermoplastics, and therefore the combination would teach away from the combination. The Examiner's position that assembly followed by vulcanization would have been obvious is unsound and states its premise as a conclusion.

c) The claimed fluorocarbon elastomer is a non-obvious selection from the teaching of Takeyama. The claimed fluorocarbon is disclosed as part of a laundry list, and there is no reason to select the claimed material. Additionally, there is no partial curing in the Takeyama reference. Next, it does not disclose completing the cure while in contact with a substrate. The Takeyama reference teaches a dynamic vulcanization process, but the Takeyama reference does not teach partial curing. None of the references teaches the curing after contact with the substrate, and Ozawa teaches away from this limitation.

2. These arguments are not persuasive for the following reasons:

a) The Examiner maintains the position set previously, and suggests that consideration of the reference must be made taking into account more than just those teachings at column 18 of Ozawa which support Applicant's position. Applicant's arguments point to one paragraph in column 18 for conclusive clarification that the "heat treatment" is not vulcanization. This is believed to be factually incorrect. The "heat treatment" is optional ("if necessary", as acknowledged by the portion cited on page 14 of the arguments). If the heat treatment is not performed, then there is no crosslinking. However, if a heat "treatment" is performed, it is submitted that there must be some change in the material caused by the treatment. It is unclear what purpose would be served by Ozawa in performing a heat treatment which results in no physical change in the material.

Instead, the Examiner's position is that when the optional heat treatment is performed, vulcanization (crosslinking) would occur. See Ozawa, 70:43-65, for a discussion of what is interpreted to be a "heat treatment". After the heat treatment or vulcanization, the mandrel is removed (70:66-67). While Ozawa may show one embodiment in which the heat treatment is absent, it is believed to be the case that the reference as a whole teaches crosslinking or vulcanization as an optional process.

b) Applicant does not dispute that DeAntonis teaches coextrusion, or that Yokokawa teaches the claimed material and curing subsequent to extrusion. Applicant's argument therefore appears to be that the particular order of steps is not disclosed by the reference (i.e. coextrusion then

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vulcanization). However, rearrangement of the order of process steps disclosed by the prior art is believed to be obvious in the absence of unexpected results.

The Applicant's arguments state that the Examiner's position that assembly followed by vulcanization would have been obvious is unsound and states its premise as a conclusion. However, it is submitted that one of ordinary skill is not an automaton. Tires, as disclosed also by Takeyama (of record) is simply one example of articles which are assembled, and then vulcanized or crosslinked. The position is believed to be sound and supported by the references themselves, the references of record, and the knowledge generally available to the ordinary artisan.

c) Selection of a particular material from the items in a list is a highly pertinent inquiry under 35 USC 102(b). However, it is submitted that Takeyama at least suggests each of the claimed materials. The remarks do not point to any particular desirable or unexpected result for the claimed materials over the others disclosed by Takeyama. The remarks instead appear to assert that the fact that the claimed class of materials is described in a list of possible materials is, by itself, sufficient to demonstrate nonobvious. However, the reference is believed to be fair suggestion for each of the materials listed.

The argument that there is no partial curing in the Takeyama has been carefully considered. In Applicant's specification, the curing time T90 of various fluorocarbon elastomers is measured to be between 26 seconds and 217 seconds (3.6 minutes). Takeyama teaches that the vulcanization time in the kneading machine is preferably 15 seconds to 5 minutes (14:2-4), which overlaps significantly with the claimed range and is believed to suggest that the Takeyama materials are partially cured to a similar degree as those disclosed in this application. There is no

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evidence to the contrary. In Takeyama, as in all tires, it is conventional to perform vulcanization (crosslinking) as the last step after assembly of the tire (assembly to a substrate), which would fully cure all remaining material in the layer under discussion. Ozawa, considered in its entirety, does not teach to the contrary.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW J. DANIELS whose telephone number is (571)272-2450. The examiner can normally be reached on Monday - Friday, 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Matthew J. Daniels/

Primary Examiner, Art Unit 1791

3/18/08